AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for processing a received electromagnetic signal in the microwave range, received from an antenna, the signal comprising at least a first and a second carrier wave at respective first and second carrier frequencies, comprising:

splitting the received signal from the antenna comprising the first carrier wave and the second carrier wave into a first and a second branch,

a first shifting of the carrier frequency of the signal in each of the branches by respective first frequency shifts,

filtering the signal in the first and the second branch in respective first filters,

a second shifting of the carrier frequency of the signal in each of the branches by respective second frequency shifts, wherein:

there is a first frequency distance between the first frequency shifts such that after the first shift, the first carrier wave in the first branch has essentially the same center frequency as the second carrier wave in the second branch, and

the first filters have essentially the same filter characteristics so that the signal in each branch after the first filter comprises only one of said first or second carrier wave, but at essentially the same center frequency.

2. (Original) The method of claim 1, according to which the second frequency shifting is carried out by different shifts in each of the branches, the difference between the shifts in the

branches corresponding to a desired frequency separation between the first and the second carrier waves.

3. (Previously Presented) The method of claim 1, according to which the signals in the two branches are combined after the second frequency shifts, and then filtered and further processed.

4-6. Canceled.

7. (Currently Amended) A method for processing a received electromagnetic signal in the microwave range, received from an antenna, the signal comprising at least a first and a second carrier wave at respective first and second carrier frequencies, comprising:

splitting the received signal from the antenna comprising the first carrier wave and the second carrier wave into a first and a second branch,

a first shifting of the carrier frequency of the signal in each of the branches by respective first frequency shifts,

filtering the signal in the first and the second branch in respective first filters,

a second shifting of the carrier frequency of the signal in each of the branches by second frequency shifts, wherein:

the first filtering in the first and second branch filters out one of the carrier waves in each branch, so that each branch, after the first filter, comprises only one of the carrier waves, and

the second shift is carried out by the same shift amount in both of the branches.

8. (Previously Presented) The method of claim 7, according to which the signals in the two branches are combined after the second frequency shifts, and then filtered and further processed.

9-10. Canceled.

11. (Currently Amended) A device for processing ~~a received~~ an electromagnetic signal in the microwave range received from an antenna, comprising:

a splitter configured to split the received signal from the antenna into a first branch and a second branch, the received signal from the antenna including at least a first carrier wave at a first carrier frequency and a second carrier wave at a different second carrier frequency;

a first frequency shifter configured to shift the different first and second carrier frequencies of the signal in each of the branches by respective first frequency shifts, wherein there is a first frequency distance between the first frequency shifts such that, after the frequency shift, the first carrier wave in the first branch has substantially the same center frequency as the second carrier wave in the second branch;

a filter configured to filter the frequency-shifted signal in the first branch and a filter configured to filter the frequency-shifted signal in the second branch,

wherein the filter in the first branch and the filter in the second branch have substantially the same filter characteristics so that the signal in one of the branches after filtering includes only the filtered first carrier wave and the signal in the other of the branches after filtering includes only the filtered second carrier wave, but both of the first filtered carrier wave and the second filtered carrier wave are at essentially the same center frequency; and

a second frequency shifter configured to shift the carrier frequency of the filtered signal in each of the branches by respective second frequency shifts.

12. (Previously Presented) The device of claim 11, in which the second frequency shifters are configured to employ different shifts in each of the branches, the difference between the different shifts in the branches corresponding to a desired frequency separation between the first carrier waves and the second carrier waves.

13. (Previously Presented) The device of claim 11, further comprising a combiner configured to combine the signals in the two branches after the second frequency shifts, a filter for filtering the combined signal, and an analog-to-digital converter for converting the combined filtered signal into digital format.

14. (Currently Amended) A device for processing ~~a received~~ an electromagnetic signal in the microwave range received from an antenna, comprising:

a splitter configured to split the received signal from the antenna into a first branch and a second branch, the received signal from the antenna including at least a first carrier wave at a first carrier frequency and a second carrier wave at a different second carrier frequency;

a first frequency shifter configured to shift the different first and second carrier frequencies of the signal in each of the branches by respective first frequency shifts;

a first branch filter configured to filter the frequency-shifted signal in the first branch so that after filtering, the first branch includes only one of the filtered first and second carrier waves;

a second branch filter configured to filter the frequency-shifted signal in the second branch so that after filtering, the second branch includes only the other of the filtered first and second carrier waves; and

a second frequency shifter configured to shift the carrier frequency of the filtered signal in each of the branches by a same second frequency shift in both branches.

15. (Previously Presented) The device of claim 14, further comprising a combiner configured to combine the signals in the two branches after the second frequency shifts, a filter for filtering the combined signal, and an analog-to-digital converter for converting the combined filtered signal into digital format.